

REMARKS

Claims 1-9 and 14 are pending in this application. Claims 9 and 14 have been canceled by the present Amendment.

REJECTIONS UNDER 35 U.S.C. § 102

Reconsideration is respectfully requested of the rejection of claims 1-3 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,298,199 ("Hirose").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. § 2131.

The Examiner asserts that because Fig. 2 of Hirose shows virtually zero transmission at an applied voltage, Hirose discloses an infinite contrast ratio at the first gray voltage, which is infinitely greater than 0.8 times the contrast ratio at zero volts, thereby anticipating claim 1. See April 22, 2004 Office Action at 4.

Applicants respectfully disagree with the Examiner and respectfully traverse the Examiner's rejection of claims 1-3. Claim 1 clearly requires a first gray voltage within a voltage range that yields a contrast ratio greater than or equal to about 0.8 times the contrast ratio at zero volts for all viewing angles. Applicants respectfully submit that Hirose does not teach or suggest a first gray voltage range resulting in a contrast ratio which is greater than or equal to about 0.8 times the contrast at zero volts for all viewing angles, as recited in claim 1. Indeed, Fig. 2 does not show a voltage-transmission (V-T)

curve for all viewing angles, and Hirose's discussion of viewing angles is extremely limited, failing to make any reference or suggest any relationship between viewing angles and first gray voltage.

A V-T curve for an LCD varies depending on the viewing angles. Indeed, an LCD with a V-T curve having an infinite contrast ratio for a viewing angle directly in front of the display may, for example, have a V-T curve with a very low contrast ratio for viewing angles to the side of the display. This feature is easily understood with reference to Figs. 5A-5D and the corresponding descriptions thereof at pages 12-13 of the specification.

Fig. 2 of Hirose does not show V-T curves for all viewing angles, and instead only shows the V-T curve for one viewing angle, i.e., the viewing angle directly in front of the display. Indeed, Hirose does not teach or suggest a configuration of the V-T curves for other viewing angles. Accordingly, in view of Hirose, a person of ordinary skill in the related art would not know the configuration of such V-T curves, and certainly could not, without the use of impermissible hindsight, develop a first gray voltage range, wherein the contrast ratio at the first gray voltage divided by the contrast ratio at zero volts is greater than or equal to about 0.8 for all viewing angles.

Referring to Fig. 2 of Hirose, although a voltage for virtually zero transmission is shown, transmission for side viewing angles at the same voltage cannot be zero, but would be a higher value. In other words, even though a voltage yields a high contrast ratio for a viewing angle directly in front of the display, the contrast ratio for a side viewing angle at that voltage cannot be an infinite value. Indeed, such contrast ratio is probably a very low value that is less than 0.8 times the contrast ratio at zero volts.

Moreover, Applicants respectfully submit that Hirose contains no disclosure linking viewing angle with the first gray voltage range for yielding the claimed contrast ratio relationship. The references to viewing angle in Hirose cited by the Examiner are general characterizations about viewing angle asymmetry and do not bear any relation to or include any teaching linking first gray voltage to viewing angle. As such, the Examiner is overreaching in relying on such passages.

Therefore, in view of the Examiner's misplaced reliance on Fig. 2 and Hirose's general statements about viewing angle, Applicants respectfully submit that claim 1 and claims 2-3 dependent thereon, are not anticipated by Hirose.

Applicants respectfully submit that claim 1 is not anticipated by Hirose. For at least the reason that claims 2-3 depend from claim 1, claims 2-3 are also submitted not to be anticipated by the cited reference.

Therefore, Applicants respectfully request that the Examiner withdraw the rejection of claims 1-3 under 35 U.S.C. § 102(b).

REJECTIONS UNDER 35 U.S.C. § 103(a)

Reconsideration is respectfully requested of the rejection of claims 4-8 under 35 U.S.C. § 103(a) as being unpatentable over Hirose in view of U.S. Patent No. 6,256,082 ("Suzuki-2"). Applicants respectfully submit that claim 1 is patentable over the cited references, and that for at least the reason that claims 4-8 depend from claim 1, claims 4-8 are also patentable over the cited references.

Applicants respectfully submit that Hirose, when taken alone or in combination with Suzuki-2, fails to teach or suggest a voltage value of a first gray representing the darkest state applied between the pixel electrode and the common electrode that is

within a voltage range for yielding a quotient greater than or equal to about 0.8 for all viewing angles when a contrast ratio at the voltage value is divided by a contrast ratio when the voltage applied between the pixel electrode and the common electrode is zero, as recited in claim 1.

As stated above, Hirose does not disclose a first gray voltage range, wherein the contrast ratio at the first gray voltage divided by the contrast ratio at zero volts is greater than or equal to about 0.8 for all viewing angles. The addition of Suzuki-2 does not render the claimed feature obvious. Suzuki-2 makes no mention of voltage range for the first gray that is based on contrast ratio at every viewing angle.

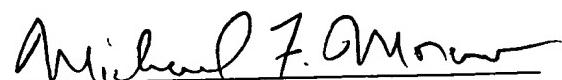
Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest the voltage range and contrast ratio features, as defined in claim 1. It is respectfully submitted that it would not have been obvious to modify Hirose, in view of Suzuki-2, to develop the embodiment of the invention recited in claim 1.

Therefore, Applicants respectfully submit that the embodiment of the invention as defined in claim 1 is patentable over Hirose, in view of Suzuki-2. For at least the reason that claims 4-8 depend from claim 1, claims 4-8 are also submitted to be patentably distinct over the cited references.

In light of the above arguments, Applicants respectfully request that the Examiner withdraw the rejection of claims 4-8 under 35 U.S.C. §103(a).

An early and favorable reconsideration is earnestly solicited. If the Examiner has any further questions or comments, it is suggested that he telephone Applicants' Attorney to reach a prompt disposition of this application.

Respectfully submitted,



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